

AMENDMENTS TO THE CLAIMS:

Claims 67-85 are canceled without prejudice or disclaimer. Claims 86-104 are added. The following is the status of the claims of the above-captioned application, as amended.

Claims 1-85 (Cancelled)

Claim 86 (New). A method of producing a modified phytase, comprising introducing a mutation in an amino acid sequence of a phytase, wherein the modified phytase has phytase activity and the mutation is at one or more positions selected from the group consisting of:

24; 27; 31; 33; 39; 40; 41; 42; 46; 49; 56; 59; 68; 69; 70; 71; 72; 73; 74; 75; 76; 77; 78; 81; 82; 84; 116; 117; 119; 120; 121; 122; 123; 124; 125; 127; 128; 132; 149; 150; 151; 152; 155; 156; 157; 158; 159; 160; 161; 162; 163; 170f; 170g; 171; 184; 185; 187; 190; 191; 192; 193; 194; 200; 201; 201a; 201b; 201c; 201d; 201f; 202; 223; 228; 232; 233; 235; 236; 237; 239; 243; 246; 253; 256; 271; 272; 274; 275; 276; 277; 279; 280; 283; 285; 287; 288; 292; 293; 304; 332; 333; 334; 335; 336; 338; 341; 342; 343; 348; 349; 362; 364; 367; 368; 369; 370; 371; 372; 374; 375; 376; 387; 393; 394; 396; 409; 412; 413; 421; and 431,

wherein each position corresponds to the position of the amino acid sequence of the mature *P. lycii* phytase (SEQ ID NO: 7).

Claim 87 (New). The method of claim 86, wherein the mutation is selected from the group consisting of:

24C; 27P; 31Y; 33C; 39H,S,Q; 40L,N; 42S,G; 49P; 56P; 58D,K,A; 59G; 69Q; 75W,F; 78D,S; 81A,G,Q,E; 82T; 84I,Y,Q,V; 116S; 119E; 120L; 122A; 123N,Q,T; 125M,S; 127Q,E,N; 128A,S,T; 132F,I,L; 151A,S; 152G; 157V; 158D,A; 159T; 160A,S; 161T,N; 162N; 163W; 170fH; 170gA; 171N; 184Q,S,P; 185S; 187A; 190A,P; 193S; 194S,T; 200G,V; 201D,E; 201a(); 201b(); 201c(); 201d(); 201f(); 202S,A; 223H,D; 228N; 232T; 233E; 235Y,L,T; 236Y,N; 237F; 246V; 253P; 256D; 271D,N; 275F,Y; 280A,P; 283P; 287A,T; 288L,I,F; 292F,Y; 293A,V; 304P,A; 332F; 336S; 338I; 343A,S,F,I,L; 348Y; 349P; 362P; 364W,F; 367A,K; 368K; 369I,L; 370V; 374S,A; 375H; 376M; 387P; 393V; 396R; 409R; 412R; 421F,Y; and 431E.

Claim 88 (New). The method of claim 86, wherein the phytase is an ascomycete phytase.

Claim 89 (New). The method of claim 88, wherein the phytase is an *Aspergillus* phytase.

Claim 90 (New). The method of claim 89, wherein the phytase is an *Aspergillus ficuum*, *Aspergillus fumigatus*, *Aspergillus nidulans*, *Aspergillus niger*, or *Aspergillus terreus* phytase.

Claim 91 (New). The modified phytase of claim 90, wherein the phytase is an *Aspergillus terreus*, CBS 116.46 phytase.

Claim 92 (New). The method of claim 86, wherein the phytase is a *Myceliophthora thermophila*, *Talaromyces thermophilus*, or *Thermomyces lanuginosus* phytase.

Claim 93 (New). The method of claim 92, wherein the phytase is a *Myceliophthora thermophila*, ATCC 34625 or ATCC 74340 phytase.

Claim 94 (New). The method of claim 92, wherein the phytase is a *Talaromyces thermophilus*, ATCC 20186 or ATCC 74338 phytase.

Claim 95 (New). The method of claim 92, wherein the phytase is a *Thermomyces lanuginosus*, NRRL B-21527 phytase.

Claim 96 (New). The method of claim 86, wherein the phytase is an ascomycete consensus phytase sequence.

Claim 97 (New). The method of claim 86, wherein the phytase is a basidiomycete phytase.

Claim 98 (New). The method of claim 97, wherein the phytase is an *Agrocybe pediades*, *Paxillus involutus*, *Peniophora lycii*, or *Trametes pubescens* phytase.

Claim 99 (New). The method of claim 98, wherein the phytase is a *Paxillus involutus*, CBS 100231 phytase.

Claim 100 (New). The method of claim 98, wherein the phytase is a *Paxillus involutus*, CBS 100231 Phy-A2 phytase.

Claim 101 (New). The method of claim 98, wherein the phytase is a *Trametes pubescens*, CBS 100232 phytase.

Claim 102 (New). A feed or food comprising a modified phytase produced by the method of claim 86.

Claim 103 (New). A composition comprising a modified phytase produced by the method of claim 86.

Claim 104 (New). A process for reducing phytate levels in animal manure comprising feeding an animal with an effective amount of the feed of claim 102.